

## European Medicinal and Aromatic Plant (MAP) Farming, Processing and Training Alliance

Questionnaire report  
(Conclusions/suggestions)



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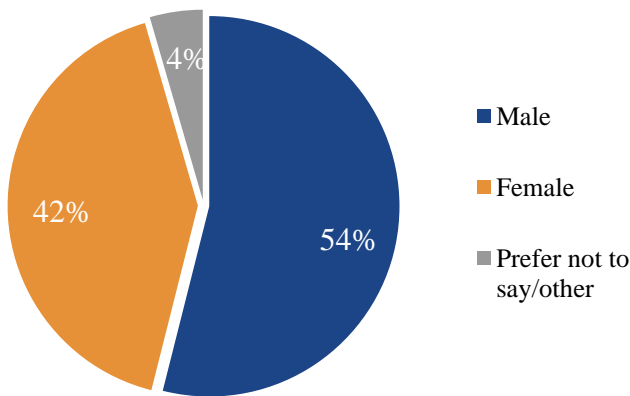
## **Overview**

The Wild MAPs FiT project aims to create a contemporary and innovative curriculum of medicinal and aromatic plants (MAPs) cultivation, harvesting, processing, storage, and marketing for young farmers, collectors, processors, etc. The project aspires to support the development of sustainable management strategies of wild harvests as well as easy-to-use post-harvest handling practices for various indigenous medicinal and aromatic plant species at local and regional food systems and enable very small farmers, wild herb collectors and rural entrepreneurs who simply lack the legal basis for direct sales of processed products to enhance their income. The current questionnaire research was conducted to identify gaps in the existing knowledge inviting stakeholders (i.e., processors, herbalists, farmers, collectors, etc.) from different countries. The aim of the current document is to provide recommendations based on the answers that were given in the different questionnaire studies (Greece, Italy, Ireland, Turkey, and Spain).

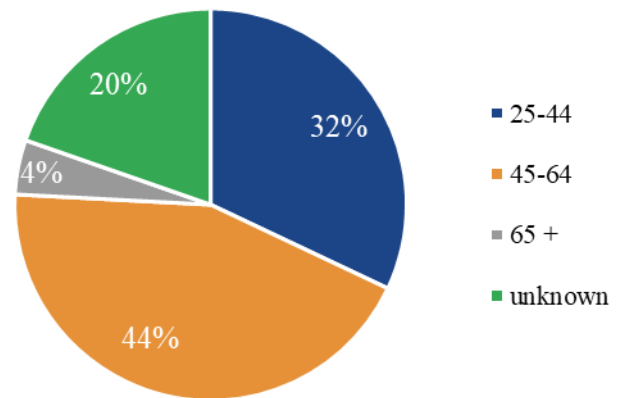
## General conclusions based on the questionnaires

### Profile of participants

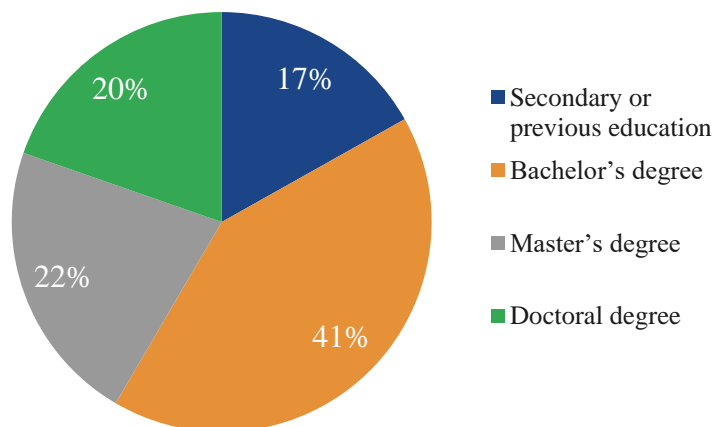
In the current questionnaire research 178 individuals participated. From those, 42% were females, 54% were males, while 4% preferred not to say (Figure 1). 44% of the participants were between 45-64 years old, while 32% of the participants were between 25-44 years old (Figure 2). The educational background of the participants varied. Specifically, 41% of the participants had a bachelor's degree, followed by those who had a master's degree (22%), while 20% of the participants had a PhD and 17% had a secondary or previous education (Figure 3).



**Figure 1.** Gender of participants.



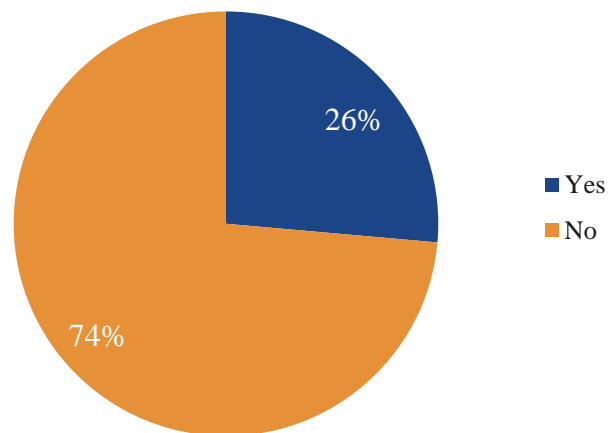
**Figure 2.** Age groups of the participants filled out the questionnaire.



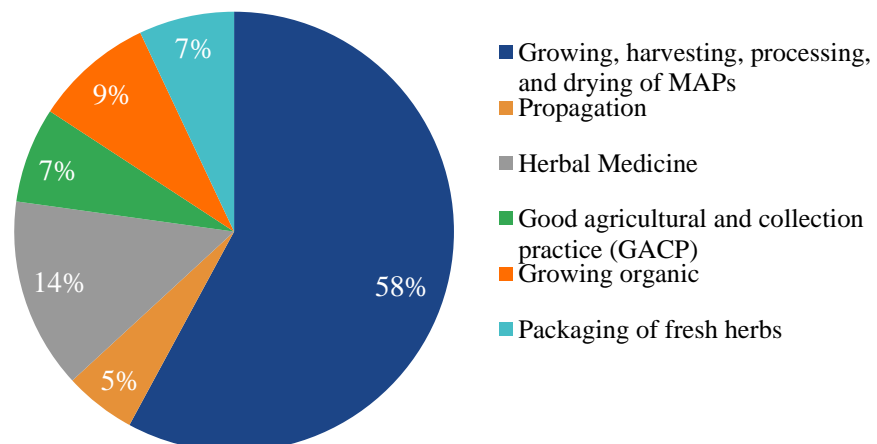
**Figure 3.** Educational level of the participants.

**Training that the participants have already received, and training that they aim to receive**

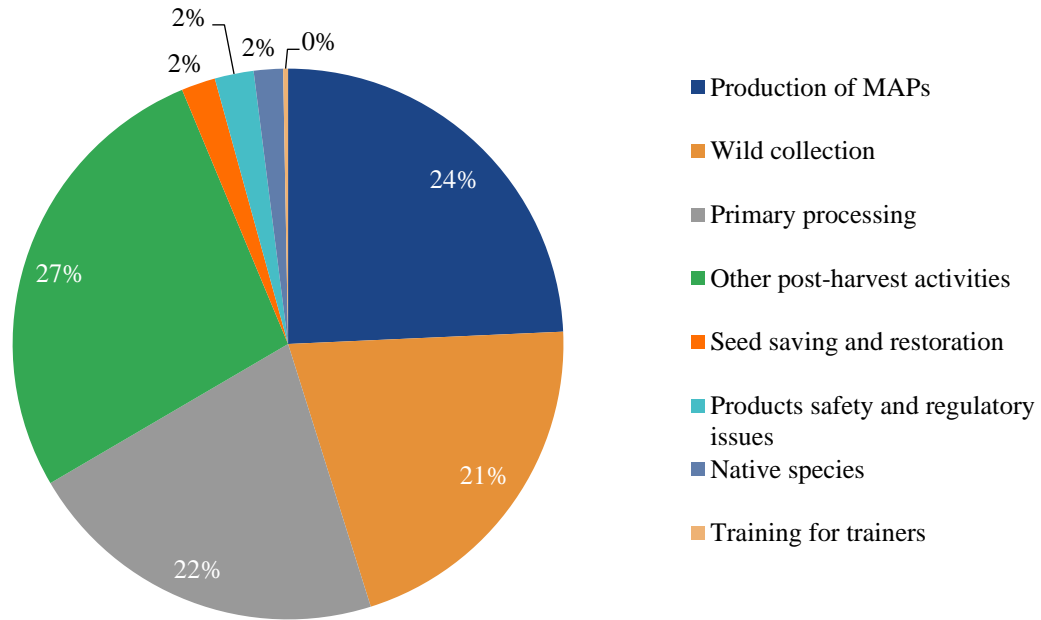
74% of the participants have not received any professional training in collection, production, and processing of MAPs (Figure 4). From the 26% of the participants who answered yes to the previous question, 58% have already received training in growing, harvesting, processing, and drying of MAPs, followed by those who have received training in herbal medicine (14%) (Figure 5). The participants would be interested in receiving training in i) post-harvest activities (i.e., hydro-distillation, compounds' extraction, and/or MAP based products manufacturing) (27%), ii) production of MAPs (24%), iii) primary processing (22%), and iv) wild collection (21%) (Figure 6). The subjects that the participants are most interested in knowing in depth are i) sustainable wild collection (10%), ii) transformation (9%) and post-harvest processing (9%), and iii) packaging and storage (8%) (Figure 7).



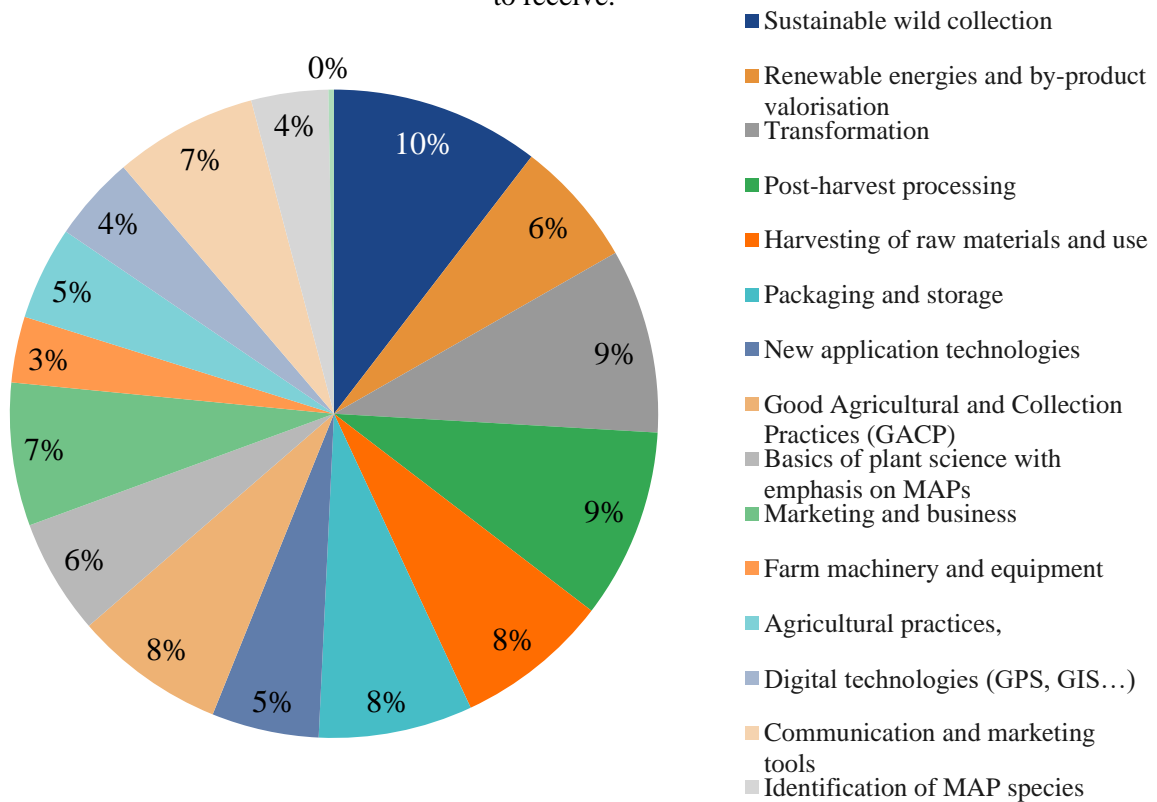
**Figure 4.** Percentage of participants who have received professional training in collection, production, and processing of MAPs.



**Figure 5.** Training that has already been received by the participants.



**Figure 6.** Training that the participants would like to receive.



**Figure 7.** Training that the participants would like to receive in depth.

Most of the wild MAPs collected in participants' area are bushes, followed by trees and herbs. Thyme, rosemary, peppermint, chamomile, oregano, salvia, nettles, lemon balm, and lavender are some of the most common MAPs reported in this research. The number of MAPs species collected varied among the different participants from 3 to 150. The harvesting period for MAPs varies among the different countries. June to September seems to be the most noted harvesting period. The dedicated area to wild harvest may vary between 0.1 to 300 ha and the harvest yields may vary between 1 to 100 kg.

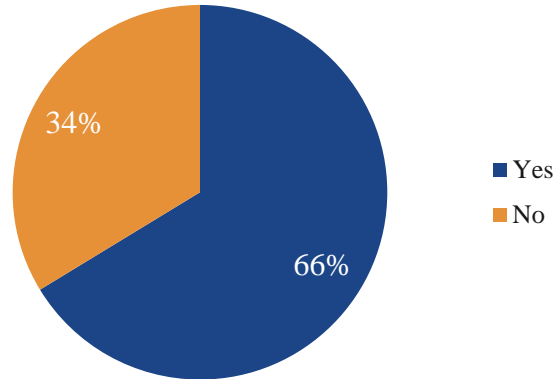
### **Growing MAPs**

The participants apart from collecting wild MAPs, grow MAPs in their farms or gardens. Most of the participants do not follow organic cultivation practices. The type of MAPs grown by the different farmers varies among the different countries and may depend on the climate conditions. Culinary vegetables such as parsley, coriander, basil, thyme, rosemary are some of the MAPs grown in a range of climates, while MAPs such as oregano and salvia grow in warmer environments (i.e., Mediterranean region). Based on the answers, the MAPs cultivation area varies between 0.1 to 7.5 ha. Specifically, cultivation areas between 0.1 to 3 ha are mostly noted especially for monocultures, while areas larger than 7.5 ha are used for multicultural cultivations.

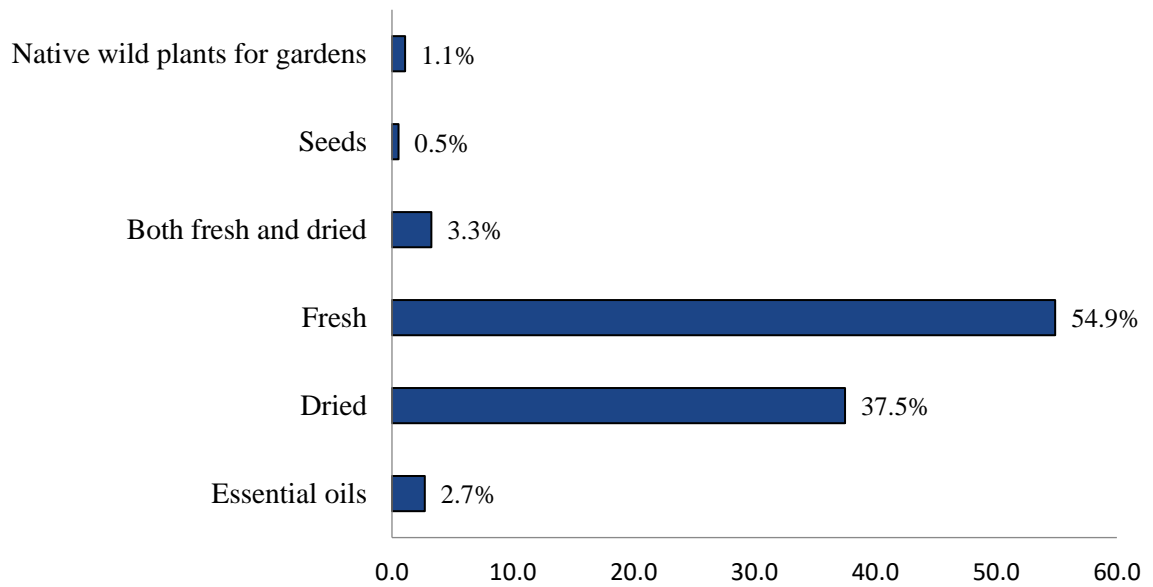
### **MAPs processing-MAPs market-MAPs Marketing**

66% of the participants use the collected and harvested MAPs for commercial purposes (Figure 8). MAPs can be used either fresh or processed. Processing includes different steps such as cleaning, drying, distillation etc. The type of MAPs that is most requested for participants is fresh (~55%), followed by dried (~38%) (Figure 9). Based on the answers 87% of the participants consider drying as essential step for MAPs preservation (Figure 10) and 62% of the participants consider drying as an easy and non-expensive technique (Figure 11). The main types of format sale used from the participants are i) dried (26%), ii) unit/s packaging (21%) and bulk packaging (21%), and iii) fresh (19%) (Figure 12). The main targets of consumers are local trade, wholesale, consumers, and retail distribution. Most of the participants use more than one marketing tool to show their work and to connect with consumers. Social network (i.e., Facebook, Instagram, twitter, etc.) and

web are the main communication and marketing tools that participants use to show their work and/or to connect with potential consumers.

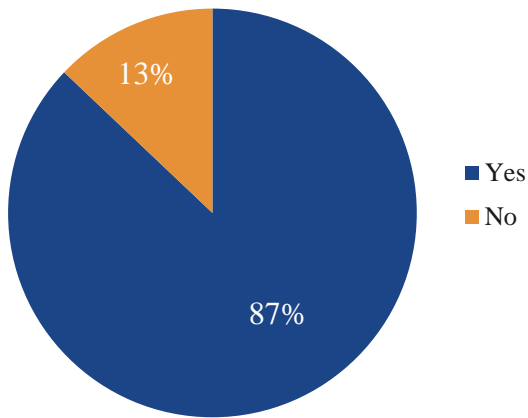


**Figure 8.** Percentage of MAPs raw material for commercial purposes.

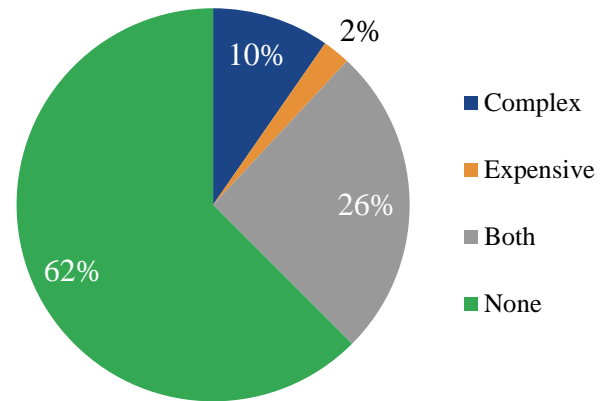


**Figure 9.** Type of MAPs raw material that is most requested for participants.

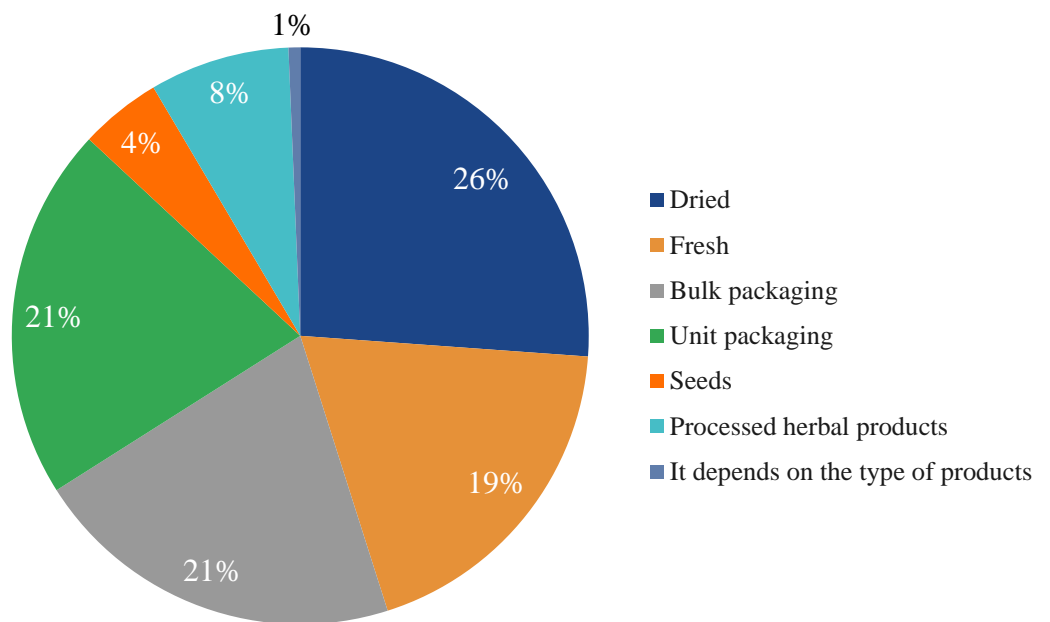




**Figure 10.** Percentage of participants that would or would not consider drying as an essential step for MAP's preservation.



**Figure 11.** Percentage of participants that would describe drying as a complex or expensive system for MAPs distribution.

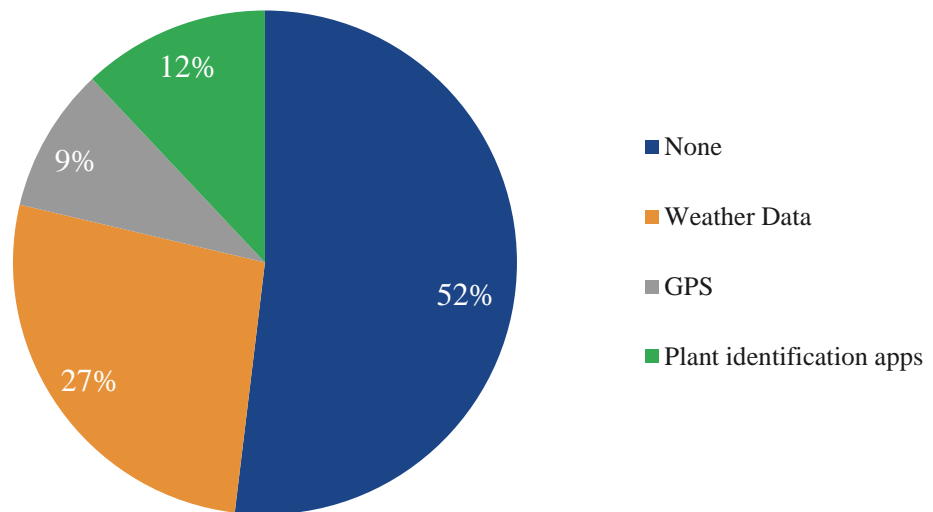


**Figure 12.** Type of sale format.

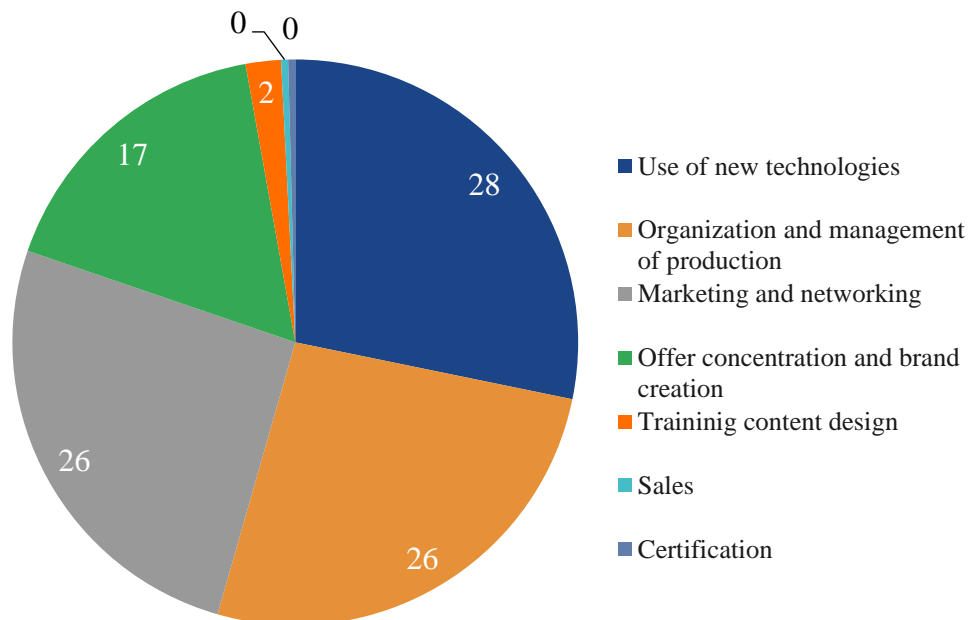
### Digital tool knowledge and use

Most of the participants (52%) do not use any modern technological tools when collecting MAPs, while few participants are familiar and use weather data (27%), plant identification (12%), and

GPS (9%) apps (Figure 13). Participants would be interested in using digital activities or online tools for plant and disease identification, growing MAPS, quality control, marketing, weather data, etc. The participants would be interested in learning about i) using new technologies (28%), ii) organization and management of production (26%) and marketing and networking (26%), as well as iii) offer concentration and brand creation (17%) (Figure 14).



**Figure 13.** Technological tools used by the participants.



**Figure 14.** Interest in non-crop information for learning.

### **Suggestions**

- The curricula should be focused on i) the postharvest processing of MAPs (i.e., drying, packaging and storage, hydro-distillation, compounds' extraction, etc.), ii) production of MAPs, iii) primary processing, and iv) wild MAPs collection.
- Regarding processing technologies, the importance of MAPs drying and packaging for quality maintenance during storage and distribution should be included and highlighted.
- Regarding plant species, in general, the curricula should include a wide spectrum of MAPs (bushes, herbs, trees) with a specific focus on herbs such as thyme, peppermint, chamomile, lavender parsley, oregano, salvia, nettles, lemon balm, etc.
- Information about organic cultivation and Good Agricultural and Collection Practices (GACP) should be included and highlighted.
- In the curricula, information regarding biodiversity preservation and current legislation about harvesting wild MAPs should be included.
- Information about using digital activities and/or online tools for disease identification, growing MAPS, quality control, marketing, GPS, and weather data should be included.
- Information about organization and management of production, marketing, and networking, and offer concentration and brand creation should also be included.